



PATENT ABSTRACTS OF JAPAN

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(71) Applicant: NIPPON TELEGR & TELEPH
 CORP <NTT>
 (72) Inventor: MATSUOKA SHINJI
 AIDA KAZUO
 NAKAGAWA SEIJI

(54) N-BIT MULTIPLEXING/DEMULTIPLEXING CIRCUIT

(57) Abstract:

PURPOSE: To perform the quick operation in accordance with the speed of a multiplexing part even at the time of considerably changing the number of multiplexing bits or input channels by providing time slot converting circuits.

CONSTITUTION: Time slot exchange to take the i -th bit of each input signal of n -number of channels as the output signal of the i -th channel is performed with n -number of bits as the unit by time slot converting circuits, and multiplexing in $n:1$ is performed in multiplexing parts, and each time slot converting circuit is allowed to correspond to a prescribed channel by an n -bit multiplexing circuit, and time slot exchange is performed with n -number of bits as the unit to convert input signals to a new N -channel signal sequence, and this new N channel signal sequence is inputted to perform multiplexing in $N:1$. Consequently, the conversion

processing speed is easily increased because being dependent upon only the speed of multiplexing parts though the number (n) of multiplexing bits or the number N of input channels is increased, and the constitution of a control circuit is simplified.

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